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THE MOSQUE AT CORDOVA.

[Interior of the Cathedral at Cordova.]

The origin of this magnificent edifice, which, taken altogether, is perhaps one of the most extraordinary architectural works the world possesses, was the desire of Abd-el-Rahman, king of Cordova, during the brilliant period of the Moorish empire in Spain, to raise a mosque which should be to the faithful Mohammedans of the West what that of Mecca was to those of the East; and which should surpass its predecessor in richness and grandeur. He had the good fortune to find an architect and workmen able to carry out his designs. The work was commenced in 770. The site chosen was an elevated but irregular space, which on one side extended downwards to the banks of the Guadalquiver, and whereon had previously stood a Christian Gothic church. The remains of this edifice, and of various Roman works, among others a temple of Janus, were used in the construction of the new pile. M. Boisel, a French traveller, who visited Cordova about 1669, observed various fragments of columns, &c., lying about the mosque, which bore Roman inscriptions, several of which he copied. The expenses of the work were defrayed, according to the Moorish historians, by the booty that one of the captains of Abd-el-Rahman had obtained from the spoil of the cities of Narbonne and Gerona, which he had taken from the French and Catalans. The edifice fulfilled the purposes for which it had been erected, up to the epoch of the conquest of Cordova, in 1234, by the Christians, when that part of Spain passed under the dominion of Ferdinand III., king of Castile and Leon. The archbishop of Toledo now changed the mosque into a Christian church; but the city again falling into the hands of the Moors, it was not until the 29th July, 1236, the day of the feast of St. Peter and St. Paul, that Ferdinand retook it, and caused the cathedral to be finally consecrated for Christian worship, planting the standard of Leon and Castile at the same time upon its summit. The building, however, we may observe, continues even to this day to be known by the appellation of the mosque. It continued in its primitive state up to the year 1528, when a project that the chapter had long entertained, of turning the Moorish mosque into a Gothic cathedral, began to be carried into execution. The inhabitants of the city, to their credit be it remembered, warmly remonstrated against such a piece of barbarism—the friends of the arts were still more energetic in their opposition—the king himself, Charles V., was averse to the matter, but the clergy were all powerful, and ultimately obtained a reluctant permission from the monarch to fulfil their desires. Chapels were accordingly built in different parts of the mosque, one occupying the centre, and to make room for which great numbers of the beautiful pillars were cut away, and used for the purpose of adorning the new erections, which they helped to render still more incongruous with the surrounding parts. Additions and alterations of this kind have been continued from time to time ever since, to the very great injury of the architectural effect of the mosque, which, in losing the simplicity of its plan, lost its greatest charm. We now proceed to describe the building.

In its primitive state the mosque occupied a square

space measuring six hundred and twenty feet from north to south, and four hundred and forty feet from east to west. Of this two hundred and ten feet formed a court on the north end, in which were fountains for the purpose of ablution; this is now called the garden of the mosque. There were seventeen gates, all covered with plates of bronze of the most delicate design and workmanship. The interior presented a most unique and extraordinary aspect:—long and apparently endless vistas of pillars and arches extending in every direction. There were nineteen ranges of columns extending in perfectly straight lines from north to south; and the columns were placed at such a distance from each other as to form, when looked at from the east or the west, thirty-five ranges. The entire space thus occupied was divided into four unequal portions by a line of very massive pillars extending in a straight line (though not in the centre) from north to south, and by a similar line extending from east to west. Such were the arrangements according to the engraved plan in Laborde's 'D'Espagne;' and the total number of pillars, including those which surrounded the garden, was, according to the same authority, eight hundred and fifty. The following is the Arabic account of the original state of the mosque. "This magnificent mosque of Cordova surpassed all those of the East. It was six hundred feet long by two hundred and fifty wide. It was entered through nineteen gates, very spacious, and covered with plates of bronze of marvellous workmanship, the principal gate being covered with plates of gold; these led to its Alkibla through nineteen streets (aisles) of columns of different marbles, very precious and marvellously wrought, and these were crossed by thirty-eight streets from east to west, in each of which sides were nine gates. The number of the columns was one thousand and ninety-three. Aben Hazan says that the height of its Alminar, or tower, was forty fathoms, a little more or less. Above the highest cupola there were three gilt globes, and above them a pomegranate of gold. For the prayers at night were lighted four thousand seven hundred lamps, which consumed every year twenty-four thousand pounds of oil, and one hundred and twenty pounds of aloe and amber for perfumes. The lamp of the Mihrab, or secret oratory, was of gold, and of marvellous workmanship and size."* The present number of pillars, according to the 'Landscape Annual' for 1836, is six hundred and thirty-two. The chief alterations that have taken place in the arrangements we have described, are the stripping the splendid gates of their principal decorations and shutting up several of their number, and the lessening the number and interrupting the continuity of the ranges of the pillars by the modern erections, and thereby injuring the plan and harmony of the building.

The four fronts of this beautiful structure present walls of a remarkable solidity, about fifty feet high; they are crowned with battlements, and have at frequent intervals square flat buttresses rising their whole height. Between most of the latter are gates highly decorated with sculpture, which, although formed of a composition, keeps its beautiful workmanship uninjured even to this day, after centuries of exposure. The decorations are painted in a variety of brilliant colours, and exhibit in some parts a kind of mosaic work of baked earth. The four fronts differ not only in their ornaments, but in their height, circumstances which are accounted for by the necessity the artist was under of accommodating his work to the extreme taste of the Arabs for variety, and to the unevenness of the ground. This is so great, that in approaching the mosque on the north side it is necessary to make a considerable descent; whilst on the south, where it almost touches the bank of the Guadalquiver, one must make a still more considerable rise. In the interior we find no less than forty-six chapels ranged principally along the walls, and twelve altars. There are now seventeen ranges of pillars one way, and thirty-one the other; the aisles in the first direction being about seventeen feet broad, and those in the other about nine feet. Every column in all that vast forest of columns is of marble or other precious stone; we find them of jasper, porphyry, verd-antique, and of the choicest marbles—grey, red, green, blue, yellow, fawn-coloured, and white, most beautifully veined, streaked, ribboned, and watered. Their value must be enormous. Indeed one scarcely knows which to admire the most, their number or individual beauty. The variety which exists among them reveals the workmanship of different hands and of different periods; the great body of them are entirely Roman, but the Arab architect falling sometimes short of a base, sometimes a capital, made them himself in imitation of the remains before his eye. They have all been reduced to one uniform length of about nine or ten feet between the base and capital. The capitals of adjoining pillars are connected together by the Moorish horse-shoe arch, and above this arch is a second. A solemn gloom pervades all the place, for light is admitted but at infrequent intervals, and the lowness of the ceiling (about thirty-five feet) contributes to increase this effect. The wood-work of the roof is of the time of the founder, and is not less curious in its way than the other parts of this very interesting structure. Portions of it have been carried away to make musical instruments (guitars in particular), for which the wood is considered very suitable. Much, however, still remains of the original material, though concealed partially by the plastered ceiling. The joists are covered with paintings and ornaments in a very excellent state of preservation. If we may believe tradition, the wood was taken from a forest then standing on the opposite banks of the river, but of which no traces now remain. The different pieces of the roof have experienced so little alteration, that it is commonly said they were formed of an incorruptible timber. It is a species of pine, the alerce, and possesses a sweeter odour than any other kind now known in the country. Where the walls remain in their original state they are covered with a profusion of minute ornaments worked upon a plaster surface, containing every here and there sentences from the Korán inscribed within wreaths and garlands and other ornaments. The Gothic choir erected in the central part of the mosque rises like a distinct building; it is of immense size and very magnificent, according to some writers, whilst according to others it is not even sufficiently beautiful to alleviate our regret at finding the original edifice thus injured in its general harmony. The only erection that existed in the centre of the mosque, in the Moorish period, was a *mimbar*, or pulpit, a magnificent piece of workmanship, forming an apartment about forty feet square. It is now used as a chapel, and is greatly disfigured by the modern paraphernalia of Catholic worship. Nothing can exceed the elaborate beauty of its Arabesques, which almost entirely cover the walls; yet even these could not escape the hand of the spoiler, for part of them have been removed to make way for a modern altar. The roof rises to about the height of fifty feet, and consists of an octagonal dome, richly painted, carved, and inlaid. "But the Zancarron, or chapel of Mohammed, against the southern wall, surpasses in beauty every other part of the mosque. There are three enclosures (for chapels they are not, though so called), separated from the rest of the cathedral and from each other by columns of jasper and the richest marble, supporting arches in double tiers of the most grotesque forms—of a style, in fact, not to be seen elsewhere in the Peninsula. The centre enclosure at once fixes the attention. In the wall is a horse-shoe archway leading into an inner room, and around it is a deep facing of Arabesques of the most elegant patterns and brilliant colours, red, black, and gold, formed by a mosaic work of crys-

* Conde, 'Historia de los Arabes,' tom. i., cap. 24 and 28.

tal of inimitable beauty. About this are long straight bands of Arabic inscriptions in large gold letters on a black ground, or *vice versâ*; and above it, the wall rises, clothed with tracery in relief, to the roof, which is lofty, lantern shaped, richly gilt, and lighted by small apertures or windows without glass. The apartment within the arch is an octagon of fifteen feet,—its height the same; the walls are ornamented with columns and arches in relief; and the roof is of pure white marble in a single piece, carved in the form of a scallop-shell. This was the Maksura, where was deposited the Korân."* When illuminated, and more especially on the later nights of the Moorish Ramadan, by the massive silver chandeliers that hung from its centre, the gorgeous beauty of the Zancarron must have surpassed even everything our imaginations can conceive of Eastern magnificence. The garden, or court of orange-trees, as it is sometimes called, was originally surrounded on three sides with a portico supported by sixty-two columns, having somewhat the appearance of the cloisters of our cathedrals; on the fourth side was the mosque. The openings into the aisles of the latter are now closed up, and the portico on the north side has been removed, and various halls and apartments erected in its place. This garden is a very delightful spot. It is elevated upon an enormous cistern, and contains but four or five feet of soil. This, however, appears to have been amply sufficient, for there are a great number of flourishing orange and citron trees, and some few cypresses, all very ancient. There are also several fountains of gushing water, falling into marble basins filled with glittering shoals of gold and silver fish. The chief entrance to the mosque lay through this garden, where the comers performed their ablutions, and then passed barefooted into the sacred building. The garden itself was reached by a large horse-shoe archway thirty feet high and fifteen broad, and which, in reference to one great object of the many visitants of the mosque, was beautifully designated the *gate of pardon*. Over this rises a square tower to the height of nearly three hundred feet, which is partly of Moorish, partly of modern construction. On the archway is the following inscription from the Korân: "O true believers! come not to prayers when ye are drunk."

* 'A Summer in Andalusia,' vol. i., p. 295.

HISTORY OF A COAT.—No. IV.

[Concluded from No. 546.]

We have hitherto said nothing concerning the colour of the cloth whose production we are describing; the wool itself has a kind of dirty white tint, and must be dyed before it is fit for use. The dyeing is effected before the wool is spun, for forming cloth of mixed colours; after it is spun into thread, for tapestry-work; but after it is both spun and woven, for the generality of purposes: in the last case, the dyeing is performed after the scouring, by which the oil is removed, but before the milling, which we have yet to describe. The subject of dyeing is too extensive to be here entered upon at much length; but we will briefly speak of the processes by which a piece of cloth is dyed black.

In order that the black dye may be successfully made, it is necessary that the cloth be previously dyed some other dark colour. The finest and deepest black is obtained after a blue dye has been given to the cloth; but a cheaper black results when the cloth has been previously dyed with a brown or root-coloured ground obtained from the root of the walnut-tree or from green walnut-peels; the preparatory blue dye is obtained from indigo and woad; and the nature of the operations will be sufficiently indicated by the following modes of imparting the black dye, these being merely two modes out of many that are adopted. The blue-dyed cloth is boiled for two hours in a solution of galls, and is afterwards kept for a similar length of time in a bath composed of logwood and sulphate of iron. Or, a bath is prepared of a pound and a half of yellow-wood, five pounds of logwood, and ten pounds of sumach, which is the proportion of ingredients for every fifteen yards of deep-blue cloth; the cloth having boiled in this bath for three hours, ten pounds of sulphate of iron are added, and the cloth remains for two hours longer. In either case, the blue dye used previous to the black is made to unite to the cloth by means of a *mordant*, or fixing liquid; and the black afterwards unites with the blue; indeed the general processes of dyeing may be characterised thus:—a mordant, which has an affinity for the woolly fibres as well as for the dye-stuff, is first applied to the woven materials, and serves as a link or medium through which the dye is made to adhere to the cloth; for it often happens that the two latter have no tendency to unite without the aid of a third body: the dye-stuffs being principally solutions of vegetable substances, employed at a high temperature. The nice precautions necessary to be taken by the dyer, we, of course, cannot dwell upon here.

After the scouring and dyeing the cloth is milled, by a process very similar to the fulling described in the last paper. A piece of cloth, sixty-two yards in length, is put into a trough, together with about six pounds of soap spread over the surface. The cloth is then beaten for three hours by very heavy stocks or mallets, it being turned occasionally, to present a new surface to the action of the mallets. After three hours' milling, the piece of cloth is taken out of the trough, soaped again, and re-milled in a similar manner; this is done a third and even a fourth time. The enormous amount of beating and pressure which the cloth thus undergoes produces remarkable effects on it: the length is reduced from sixty-two yards to forty yards; and the width from a hundred inches to sixty inches; the fibres are found to be matted and clotted together in a manner which renders it impossible to disunite them; and the threads are wholly concealed by the felting which has been here effected. It is in this process that the serrations in the fibres of wool, of which we spoke in a former paper, cause that peculiar entanglement called felting. The blows of the mallets on the cloth force the small fibres in various directions; and if two neighbouring fibres happen to be so placed that their serrations interlock or catch in one another, this is a miniature instance of the felting or milling which, on the large scale, has so peculiar an effect on the piece of cloth. Not only do both sides of the cloth acquire a nap or pile by the bristling up of the fibres, but a piece of woollen cloth can be safely left with a cut but unhemmed edge, because the fibres of one thread interlace with those of the adjoining one, and thus prevent the thread from ravelling out. We trust the reader will have perceived, from this description, that the pile of a piece of woollen cloth is not a substance laid on the woven material, but consists of some of the fibres of the woven threads, raised up, and entangled one among another.

The nap just described is, however, too irregular and rough to suit our ideas of neatness and elegance; and in order to remove a portion of this roughness, the cloth goes through the processes of *teazling* and *shearing*,—the first of which drags up the fibres so that their points shall, in some degree, be presented uppermost, and the second shaves or cuts off a portion of these fibres from the whole surface of the cloth.

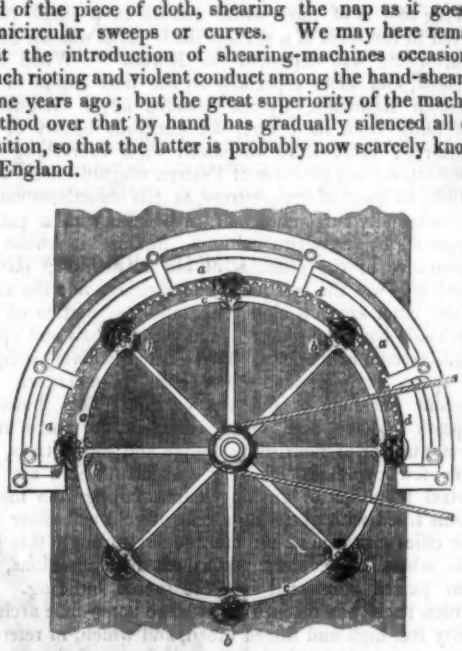
Teazling is a process which differs from almost every other in modern manufacture in this circumstance, that although it is strictly mechanical, no combination of machinery has yet succeeded in effecting it so well as a small vegetable production. The fibres of the cloth have to be raised up by a kind of scratching action, and nothing has yet effected this so well as the sharp hooked points of the common *Teazle* (the *Dypsacus fullonum*). Their excellence for this purpose seems to depend on the

following circumstance, that if the hooked points catch in a knot of the cloth, they break off without tearing a hole in it; whereas steel or iron points, worked by machinery, would almost certainly drag the cloth into holes more readily than they would yield by fracture. It is not improbable that some mode will be hereafter devised which will effect this process by machinery, especially as fifteen or twenty hundred teazle-heads are required for every piece of cloth; but hitherto all such modes have been unsatisfactory. Referring to the last Supplement, p. 384, for a representation of the teazle, and an account of its nature, cultivation, market-price, &c., we will here proceed to describe how it is employed.

Under the old system a number of teazle-heads were set close together in small wooden frames of a convenient shape to be worked by hand. The cloth was drawn over a frame constructed of boards laid in a sloping direction and covered with hair-cloth; and was then scraped or rubbed with the teazles from one end to the other, being kept constantly wetted with water during the whole time. The cloth was then laid on the shearing-boards, which were wooden planks covered with coarse hair-cloth, forming a sort of hard cushion; and the raised fibres of the cloth were cut or sheared off with long heavy shears, which were pressed close to the cloth by means of leaden weights, and which gradually slid forward at every motion or cut, until the cloth was sheared from edge to edge. The cloth was then returned to the teazling-frame,—more fibres were raised, and these fibres were cut off at the shearing-frame. This alternation was repeated three times, finer teazles being employed as the process approached completion.

But in the more modern system the two processes of teazling and of shearing are separated, and each one is performed by steam-power. The hand-teazles are now superseded by the *gig-mill*, consisting principally of a cylinder covered nearly all over its exterior surface with teazles, or, in some few cases, with metallic wires. This cylinder revolves; and the piece of cloth, while passing from one roller to another, is pressed against the points of the teazles so that the fibres are effectually worked up. When the hooks of the teazles become filled with flocks of wool, they are taken out of the cylinder and cleaned by children with a small comb; where the metallic teazles have been employed with any degree of success, their points are cleared by a revolving brush connected with the machine. Different varieties of the gig-mill have been introduced in proportion as the advantages of employing machinery became clearly understood.

The shearing used to be effected by the shears, as we before stated, and was a process requiring much manual dexterity, since the nap had not only to be cut in an even and parallel manner, but the shears had to be shifted after each cut to just such a distance (and that a very small one) as to make another cut in the proper place. As the shears were difficult to hold and manage, machines were contrived, in which the shears were fixed to a carriage which, moving slowly over the cloth, caused their cutting edges to work upon every part of the nap. But still, as the cuttings were made by separate and distinct movements of the shears, the process was not of that continuous nature which we are accustomed to meet with in modern manufactures; and attention was directed to the construction of machines for the more effectual performance of this process. Many such have been recently invented, of which we will briefly describe one, that of Mr. Oldland. The shaded portion of the annexed cut represents a piece of cloth, and the lighter parts show the shearing-machine at work on it. (*c*, *c*) is a large working wheel, made to rotate by a band and pulley connected with its axis. Round its circumference are fixed eight little circular cutting discs (*b*, *b*), and each disc has a toothed pinion which works in a toothed semicircular rack (*d*, *d*); so that when the large wheel is rotating, the small cutters have a curious motion, not much unlike that of a planet, that is, they all revolve round the centre of the large wheel, and at the same time each one rotates on its own axis. (*a*, *a*) is a semicircular cutting blade, on whose edge the circular cutters rest in such a manner as to form a series of scissors or shears: the nap is caught up between the edge of the semicircle and the edge of the disc, and then cut off. The machine is gradually driven from end to end of the piece of cloth, shearing the nap as it goes in semicircular sweeps or curves. We may here remark that the introduction of shearing-machines occasioned much rioting and violent conduct among the hand-shearers some years ago; but the great superiority of the machine method over that by hand has gradually silenced all opposition, so that the latter is probably now scarcely known in England.



When the shearing is completed, the cloth is well brushed, in order to remove the loose particles of wool, and to lay the nap even and smooth. This operation used to be performed by hand, but it is now effected by means of cylinders having hair brushes on their circumference. The piece of cloth is conducted over a system of rollers, to extend it and to draw it forwards: it then passes over one of the brush-cylinders and under the other; and as both cylinders rotate rapidly, the cloth becomes well brushed on both sides.

The cloth is next subjected to the process of pressing, by which a smooth level surface is produced. The piece is folded backwards and forwards in yard lengths, so as to form a thick package, which is placed either in a screw-press, or, in modern establishments, a hydrostatic press. Sheets of glazed paper are placed between the folds of the cloth, in order to prevent the contact of two surfaces of the latter; and at the end of every twenty yards, three hot iron plates are inserted between the folds, laid side by side, so as to cover the whole width of the cloth: thin sheets of cold iron are placed between the cloth and the heated plates to moderate the warmth. When a large package is built up, it is subjected to severe pressure in the press, where it remains till the plates are cold. The cloth is now taken out and refolded, in such a manner that the creases of the former folds may come opposite to the flat surfaces of the paper, and be removed by a second pressure. If the heat of the plates be too great, a satin-like lustre and smoothness are given to the cloth, which is liable to unsightly stains if afterwards spotted by rain.

By some modern machines the brushing and pressing are effected in a few minutes by the combined action of brush-cylinders, a steam-cistern, and calendering or pressing rollers. Indeed throughout the manufacture we have contented ourselves with describing the most usual modes of effecting the object in view, without attempting to describe all the various ingenious machines which have

been from time to time introduced for the more speedy performance of the required processes.

Our piece of cloth is now finished; and we have only to say, that the manufacturer usually packs up the cloth in bales containing twenty or twenty-five pieces: the bale is first enclosed in paper, and then in canvas, and is thus transmitted to the purchaser.

The method by which a piece of cloth is measured and cut to the proper dimensions for forming a coat would be difficult to describe in writing, although we can easily enough form a conception of it: our object has been not so much to speak of the means by which the scissors and the needle fashion a coat out of a piece of cloth, as to convey some idea of the process by which the woolly covering of a sheep becomes a smooth and elegant woven material from whence a garment may be made. Although cloths of very different degrees of quality are made, yet the routine of manufacture is pretty much the same for all; indeed it is probable that in no country in the world does the coat of the nobleman differ less from that of the artisan than in England. Thanks to machinery, our working population is more neatly and comfortably dressed than at any former period: a journeyman in his Sunday attire would not be seen in a coat of worse quality than broad-cloth; and if George Fox, the founder of the Quakers, were again amongst us in his leathern doublet, he would see how neatly labouring mechanics, to which class he belonged, have been enabled to increase their comforts by the cheapening effects of machinery on the prices of clothing. If it be objected that we should not value a man by the quality of his coat, we would remark, on the other hand, that neatness of person and dress is one of the elements of moral advancement by inducing self-respect.

HORSE ARMOURY IN THE TOWER.—XIII. James I.

[James I.]

From the lengthened consideration we have been induced to bestow on the characters and actions of the principal actors in the chivalry of the days of our Maiden Queen, we have neglected to notice (what perhaps, in our present series of articles, should be treated with as much minuteness) the fashion of their habiliments and the forms and uses of their weapons of offence and defence. Although governed by a woman, the subjects of Elizabeth were as warlike as those of any of her predecessors, and the masculine character of the queen, bold, courageous, and fearless of danger, led her to patronise sports of a hardy and invigorating character, that her people might not sink into effeminate habits, but retain the fearless and active dispositions of their ancestors. From this feeling, joined to the desire for warlike expeditions to foreign shores, which seemed to actuate the whole British nation in the days of Raleigh and Essex and Sydney, may be attributed the many improvements and importations from Italy and Spain effected in the fashion of armour and warlike instruments at that period. Another cause of the

very different form which the armour assumed during the latter part of the reign of Elizabeth to that in which it had hitherto been manufactured, may be found in the unprecedented fashion of the dresses of the civilian at that date; armour in all ages having taken its predominant form in some degree from the common dresses of the day.

Armour, however, was only used to cover the upper portions of the body, the large trunk hose rendering it inconvenient to use armour for the thighs and legs, which, if made to cover them, would require such a load of iron as the strongest warrior of that age would have been unable to endure. Besides, the profuse and expensive ornaments which enriched that portion of apparel would in that case have been hidden from the admiring gaze of the public, and would not have excited the envy of brother knights and courtiers. It was, however, imperatively necessary to cover the doublet, if the warrior or tilter did not wish to be run through by the first lance; and consequently the breastplate had to be made of the form of that article of apparel which at this time obtained the name of the long peascod-bellied doublet, from its being made long and projecting in front, in the form of a pea-shell. According to Stubbs it was also "quilted and stuffed with four, five, or six pounds of bombast, the exterior being of satin, silk, taffata, grograine, chamlet, or gold and silver stuff, slashed, jagged, cut, carved, pinched, and laced, with all kind of costly lace of divers and sundry colours."

In imitation of all these ornaments, the armour was much embossed and ornamented; and it is probably to this kind that we must refer that worn by Sir Walter Raleigh in one of the court galas, when he appeared, according to Oldys, in solid silver armour, with sword and belt blazing with diamonds, rubies, and pearls.

The breastplates were not only larger, to cover the well-padded doublets, but they were also made thicker, that they might be bullet-proof; fire-arms becoming of more extensive employment in warfare. The tassets were of one piece, but generally marked in imitation of several. For a head-dress, the morion was held in the greatest esteem, being worn without a visor, and much ornamented with figures in relief. It was of a conical shape, much resembling the polished part of an acorn, the situation of the jointure of the cap being occupied by a projecting rim turning up in front.

The fire-arms introduced at this period were carabines, petronels, dragons, muskets, and calivers. The carabine, or carbine, was a small firelock used by the cavalry, and smaller than that employed by the foot-soldiers. The petronel obtained its name from *poitrinal*, being fired with its straight and square butt-end held against the chest. The dragon was so called from its muzzle being generally ornamented with the head of that fabled monster, and the troops who used it subsequently acquired the name of dragons and dragoons from the circumstance. The musket was introduced from Spain, and used with a rest in the form of a hay-fork, on which the left hand was placed when the piece was fired, instead of holding the barrel. The caliver was soon afterwards brought into use, the name being obtained from the *calibre* of the bullet used for the piece. Both the musket and caliver were match-lock pieces, the wheel-lock being too expensive for general use. Although the advantages of fire-arms would seem to be too apparent to be overlooked by military men, the prejudice in favour of archery continued so great in the sixteenth and seventeenth centuries, as to render the employment of such arms very unpopular. Among the larger fire-arms, bombs, grenades, and howitzers were introduced between the years 1588 and 1594.

The sports of the common people in the reigns of Elizabeth and James, at least those at all connected with the subject of the present paper, consisted of tilting or running at the ring, though this was rather confined to the middling classes (leaving tournaments to the nobles of the court); and running at the quintain, a machine consisting of a long beam made to swing at its centre on the top of another upright beam; and the dexterity of the player consisted in running against one extremity and hitting a certain mark full, and so as to prevent being hit by the other end of the beam as it swung round the upright post in consequence of the blow. One of these instruments is still to be seen on the green at Hoff-ham near Maidstone in Kent, being kept in constant repair in consequence of the terms of an old tenure by which the manor is held.

In the reign of James I. armour was but little worn, and it is said that that monarch remarked of armour, "that it was an excellent invention, for it not only saved the life of the wearer, but hindered him from doing hurt to anybody else." Such a remark was very likely to proceed from this pusillanimous prince, who, although represented in the collection of armour in the Tower as habited in an iron panoply of the date at which he reigned, probably never wore a suit of armour in his life.

The armour represented in our engraving, copied from the figure in the Horse Armoury, is of the date of James I., and forms a full tournament suit with coverings for the thighs and legs, both, as we have said above, of very rare occurrence. The large lance he holds in his hand, resting on the ground, was only used for tournaments, being two unwieldy for serious encounters.

CASPAR HAUSER.

[Concluded from No. 547.]

Vanity may be considered as Hauser's ruling passion, and he could ill brook the indifference with which he began to be treated. The story of the attempt at assassination again raised him to notoriety, and indeed induced many persons to think there was more truth in his story than they had previously attached to it. Of course it was asserted that those who had been concerned in his long imprisonment were fearful of discovery, and had sought his destruction as a means of securing their safety.

We now come to the final scene of this mysterious story. For some time previous to the death of Caspar Hauser, he had evinced a desire to be free from the attendance of the soldier who had been appointed his protector during his walks; and during the absence of Earl Stanhope, M. von Feuerbach was prevailed on to revoke the order for his being restricted in his walks, and he received permission to go alone into the streets, but not out of the town, consequently not to the court garden; but to this place he went on the 12th December, although he had been cautioned not to do so, because he had been invited to meet a stranger there. Till this period he had evinced apprehension of danger, and was, apparently, as anxious to be protected as his friends were that he should be preserved from violence. But he was again becoming an object of little interest, and his vanity took the alarm. In the court garden he met a man, but not the same that had made the appointment. This man gave him a silk bag; and as Caspar Hauser was in the act of sitting down, he received a wound in his breast from a dagger which the stranger had kept concealed. On the former occasion of his being wounded, the person who stabbed him came upon him suddenly, and yet he could notice the "new boots" and the "ring" which the assassin then wore. Now he walked deliberately up to his assailant, whom he had every opportunity of examining minutely, but of his person he could give but a vague description; his cloak had but one cape, which, he believed, came below the sleeves, but he could not mention its colour. Caspar Hauser, on receiving the wound, let the bag fall and hurried home to the residence of M. Meyer

the schoolmaster, under whose care he had been placed, and to him he showed the wound he had received; but to the urgent questions that were put to him, to ascertain the circumstances which had occurred, he would give no answers for a considerable time. It is evident that he had no idea that the wound was of a very dangerous nature; for on the evening of the sixteenth (the day before his death), he talked of finishing some pasteboard-works after his recovery. Indeed the wound was not considered as likely to be fatal by his medical attendants: it was "two inches and a half under the centre of the left breast, and three inches from the middle line of the body, sharply drawn with two edges that were quite sharp," and, from one end to the other, three-quarters of an inch long; the sides hardly opened the twelfth part of an inch, so that it could only have been inflicted by an instrument which was even to its extremity "sharp and two-edged." (*Report of Dr. Heidenreich.*) The Dr. also reported that "it may not have been an ordinary dagger;" and that "it did not require the knife of an assassin, for what is called a Low Country dagger was exactly qualified to inflict such a wound." Another physician who attended considered the instrument with which the wound was inflicted must have had "the form of the blade of a common knife;" and the opinion of another was, that a wound similar to that which Caspar Hauser had received, would not have proved mortal if inflicted one rib lower.

At the time of this occurrence Hauser's story had again ceased to excite much attention: the persons connected with his early imprisonment were in no danger of discovery, and consequently would have better secured safety by permitting their victim to fall into insignificance, than by again exciting public attention. But even supposing they saw the necessity of Hauser's death, it is highly improbable that they would have attempted to effect their purpose in such a public place, and at a time when the deed was certain to be discovered in a short time, and the murderer easily pursued. It is to be supposed that an assassin would have aimed at the heart, and not have struck in an oblique direction; indeed his object must have been the immediate death of his victim: if one blow had proved insufficient, another and another would have been inflicted. But it is unnecessary to dwell on this subject; every circumstance tends to prove that Caspar Hauser was totally unworthy of credit; and it is scarcely to be doubted that the wound was inflicted by his own hand, but without the design of self-destruction. The physician of the municipality observed, that "all those persons who are wounded by the hand of another are anxious with respect to their wound and to their fate; but those who wound themselves do not show any concern about it, remain indifferent, and hardly take the trouble of asking any questions as to their situation, which last was the case with Caspar Hauser."

In conclusion, Earl Stanhope observes:—"First, a very sharp and very slight instrument, which inflicted the wound, might by pressure, not by a blow, have penetrated much deeper than was intended, as soon as it overcame the resistance of his coat, which was wadded.

"Secondly, Caspar Hauser, who, about a week before, had been seriously admonished on his tendency to lying, and had been shown the consequences of that tendency, knew that a great many persons did not consider him as worthy of credit: he had also learned from Feuerbach that I entertained doubts on many parts of the story: he might have expected a full and minute investigation of all his statements, and had perhaps the intention, through a pretended assassination, to place the stamp of truth and of importance on his story, as also to revive the general interest, and to show that he could not live in safety at Anspach, and must be taken elsewhere.

"And thirdly, the pretended assassination of Caspar Hauser is by no means to be considered as an insulated fact, or as one related by a person worthy of credit, but stands in connection with his other statements, and with his well-known disposition to relate falsehoods and to excite attention."

ANECDOTE OF THE GREAT REBELLION.

The Attack of Prince Rupert, in 1642, upon Caldecote Hall, in Warwickshire, and the gallant and extraordinary Defence of the Inmates of the Mansion.

[From a Correspondent.]

The following anecdote is, we believe, little known, even in the neighbourhood of Caldecote. The hall, to which this parish has given its name, is a handsome stone mansion, with a river within a short distance of its front, and adorned with plantations and ornamental grounds. Dempster Heming, Esq., resides at this hall; and the estate of Caldecote, and some others in the neighbourhood, are his property. Within a few yards of one end of the mansion stands the small but interesting church of Caldecote, partly hid by some fine luxuriant trees, by which it is shadowed. In this church there is a marble monument bearing the following inscription:—"Here lieth the body of George Abbott, late of Calldecoate in Warwickshire, Esq., whose eminent partes, virtues, and graces, drawne forth to life in his exemplary walking with God; his tenderness to all the members of Christ, who frequently fled to his charity in their wants and counsell in cases of conscience; his exact observation of the Sabbath, which he vindicated by his pen, and in which, August 28, 1642, God honored him in the memorable and unparaleld defence of the adjoining house, with eight men (besides his mother and her maides), against the furious and fierce assault of Prince Rupert and Maurice, with eighteen troops of horse and dragoones; his perspicuous paraphrases on the books of Job and Psalms; his judicious tracts of publick affaires then emergent; his knowne integritie in publicke imployments; rendered him one of a thousand for singular piety, wisdome, learning, charity, courage, and fidelitie to his country, which he served in two parliaments, the former and this present, whereof he died a member, Febru. the 21st, 1648, in the forty-fourth year of his age. This monument was erected to his memorie by his dear mother and executrix Iohane Purefoy, the wife of Colonel William Purefoy, his beloved father-in-law, the 28th day of August, Anno Domini 1649."

The narrative itself is taken from an account of the attack upon Caldecote furnished by a gentleman in the neighbourhood. It is contained in an old MS.; but whether this MS. be or be not itself a copy of some older original, is not known.

"The cavaliers having notice, thereupon informed Prince Rupert of a worthy gentleman's house and habitation, by name Mr. W. Purfery, of Caldecote, a worthy member of the House of Commons, and a gentleman of a fair estate, who lived in a very strong and well-built house of stone. Upon which intelligence given to this prince of plunderers, he, with above five hundred of his forces, upon a Sunday morning, a little before prayer time (a fit day and fit time of the day for such plunderers, thieves, and robbers, to act their wicked designs of thefts and rapines), came to Caldecote aforesaid, and beset this gentleman's house, with an intent to plunder and pillage it, himself being absent from home, and there being within only the mistresse of the house, one or two daughters, one Mr. George Abbot, her son-in-law, a very resolute and stout young gentleman, three serving-men, and four maid-servants.* The Prince, being come to the house, sends unto them to open the gates and to deliver up the house to him: the gentleman, and all within with him, being very courageous and cheerful, and having good

* The monument says, "with eight men (besides his mother and her maids);" the narrative gives only four men, with four maids, the mother, and her daughters.

store of muskets, powder, and shot in the house, refused so to do; but stood upon their guard, resolving, by God's assistance, to fight it out, rather than to yield themselves to the perfidious cruelty of him and his accursed cavaliers; and thereupon the young gentleman took forth a dozen muskets, taught the women how to charge them, while he and the other men discharged them. Prince Rupert, thus affronted, gave command to his cavaliers to set upon the house and to break open the outmost gates, to come into the yard or court; but as his captains and soldiers entered in, the said Mr. Abbot and his men shot so thick and quick at them, and showed themselves (by God's assistance) such notable marksmen, that at the very first outset they slew one Captain Mayford and Captain Shute, and after that one Captain Steward; and ere they had done, about fifteen more of their soldiers, whereof some were officers in arms, the men within still shooting at them without intermission, and the women, who had amply learned their art, did their work and acted their parts most nimbly and cheerfully; and when their bullets began to fail, they fell to melting all their household pewter, and, having bullet-moulds in the house, speedily made more, and notably supplied that want faster than they could be spent; and thus the business was so plyed, and with such dexterity by them all in their appointed ways, God wonderfully enabling them, so that Prince Rupert was sorely put to it; and having seen so many of his men slain, and seeing he could not so easily enter the house as he and his company expected, he fired the barns, stables, and outhouses, which caused a mighty smoke, and began to smother them much in the house, and to hinder their sight from acting as they did before, and now also their store of powder was well nigh all spent; hereupon therefore Mistresse Purfery fell upon her knees, and craved quarter for herself and family only. Whereupon it pleased the Lord to mollify the prince's heart towards her, who asked her what she would desire of him? She answered, 'her own life, and the lives of those that were within.' With her certifying who and what members they were, and that only her son-in-law, Mr. Abbot, and his three servants, were all the men or male kind in the house, which did what was done, which, when Prince Rupert heard and understood for certain of the smallness of their number, and considered their brave valour and resolution, he admired and wondered at it, raised the gentlewoman from her knees, saluted her kindly, and granted her request fully and freely; and notwithstanding the slaughter of so many of his men, and some commanders, as aforesaid, went into the house to see Mr. Abbot and the rest, who had so bravely behaved themselves; whom when that he saw and that it was so indeed, he was much taken with their notable valour, saving their lives and house from plundering, saying to Mr. Abbot that he was worthy to be a chief commander in an army."

Few persons of the present day, we think, will be disposed to acquiesce in the propriety of the vituperative epithets so lavishly bestowed in the above paper upon Prince Rupert, whose conduct on the occasion appears to us to be characterised by great forbearance and generosity. It will be perceived that the name of the mistress of the mansion is spelled in the preceding narrative Purfery, and on the monument Purefoy: the latter is the correct spelling. In the church of Fenny Drayton, Leicestershire, a parish which adjoins Caldecote, there are many monuments erected to the memories of these Purefoys, who were at one time the proprietors of Drayton and other estates in the neighbourhood. The remnant of this family has long been settled in Ireland.

The Rhinoceros Hunt.—The people inhabiting the woods in the province of Tshantburi are in the habit of hunting indiscriminately tigers, bears, and rhinoceroses, as well as stags and wild cows. Their mode of dealing with the rhinoceros is very remarkable. Four or five men will arm themselves with poles made from the bamboo, after taking care to harden the sharp point which they give to one of the ends in the fire. Thus equipped, they sally forth and make for the animal's haunts, calling out and clapping their hands for the purpose of alluring or disturbing him from his covert. As soon as they see the enraged animal approach them (and his rage is expressed by his opening and snapping his huge jaws violently together), they prepare to receive him by holding out the point of the pole in a direct line with his foaming mouth, and upon the favourable moment presenting itself, they drive the pole with astonishing nerve and adroitness not only down his throat, but into his stomach, and then take to their heels right and left. The rhinoceros sets up a frightful howl, falls down on the ground, and in an agony of pain rolls himself about in the dust with hideous howlings and distortions: the hunters in the mean while begin clapping their hands and vociferating their song of triumph, in the midst of which they rush upon the monster as soon as he appears fairly exhausted by loss of blood, and dispatch him without hazard or difficulty.

The Cotton Manufacture.—"It is worthy of remark," says Mr. Rickards, "that most of the wonderful discoveries which have raised these manufactures to their present unrivalled superiority, such as roller-spinning, the jenny, the carding-machine, the mule, &c., owe their existence to the natural genius of uneducated men, moving only in the class of common workmen or labourers: this is their proud boast. The improvements through which they have attained their present perfection are all ascribable to the same class; whilst, I believe, it may be safely added, that every one of the great fortunes and immense establishments existing in the manufacturing districts may be traced to the minute savings of common operatives, who, from the smallest of small beginnings, have, by prudence, skill, and unremitting perseverance and industry, raised themselves, with unexampled rapidity, to a pinnacle of wealth and importance which, but for its existence, could scarcely be believed. This then is a state of society, with its magnificent institutions, essentially popular in its origin; its progress and present results owing little to science—nothing to patronage—but all to the unaided efforts of natural genius and practical experience; often obstructed but never encouraged by legislative enactments; and consequently exhibiting a striking example of the benefits of non-interference in matters where nothing is wanting but equal protection and security to ensure splendid success."

Influence of the Factory System upon the Condition of Women.—One of the greatest advantages resulting from the progress of manufacturing industry and from severe manual labour being superseded by machinery is its tendency to raise the condition of women. Education only is wanting to place the women of Lancashire higher in the social scale than any part of the world. The great drawback to female happiness among the middle and working classes is their complete dependence and almost helplessness in securing the means of subsistence. The want of other employment than the needle cheapens their labour, in ordinary cases, until it is almost valueless. In Lancashire profitable employment for females is abundant. Domestic servants are in consequence so scarce, that they can only be obtained from the neighbouring counties. A young woman, prudent and careful, and living with her parents from the age of 16 to 25, may in that time, by factory employment, save 100*l.* as a wedding portion. I believe it to be the interest of the community that every young woman should have this in her power. She is not then driven into an early marriage by the necessity of seeking a home; and the consciousness of independence in being able to earn her own living is favourable to the development of her best moral energies.—*Report on the Condition of the Hand-Loom Weavers, by W. E. Hickson, Esq.*

*** The Office of the Society for the Diffusion of Useful Knowledge is at 59, Lincoln's Inn Fields.

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